

Access DB# 92624

# SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: FRED ZITOMER Examiner #: 69047 Date: 4/28/03  
Art Unit: 1713 Phone Number 308-2461 Serial Number: 10/086, 844  
Mail Box and Bldg/Room Location: CP3 8E14 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Perfluorodiacyl Peptides As Polymerization Initiators  
Inventors (please provide full names): Navarini et al.

Earliest Priority Filing Date: 3/8/01

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

*Compounds of Claim 1 — Formula (A)  
Compounds are of particular interest.*

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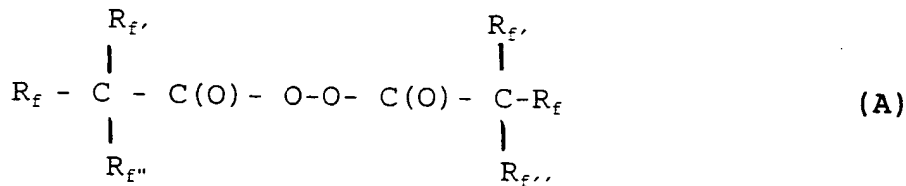
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| Searcher: <u>Ed</u>                   | Type of Search           | Vendors and cost where applicable |
| Searcher Phone #: _____               | NA Sequence (#) _____    | STN <u>\$251.87</u>               |
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|                                       | Other _____              | Other (specify) _____             |

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# CLAIMS

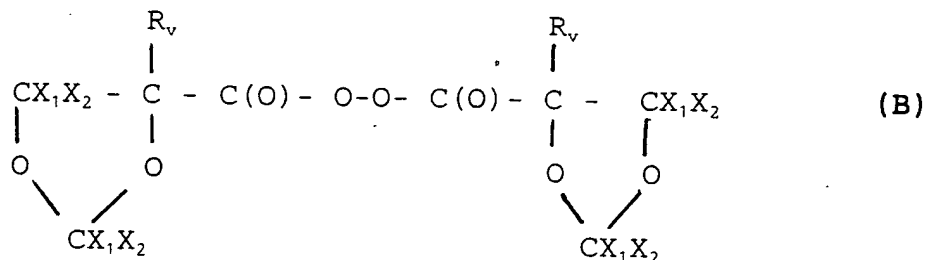
1. Perfluorodiacylperoxides having the following structures:



wherein:

when  $R_f$  is F,  $R_{f'}$ ,  $R_{f''}$  are both  $-CF_3$ ;

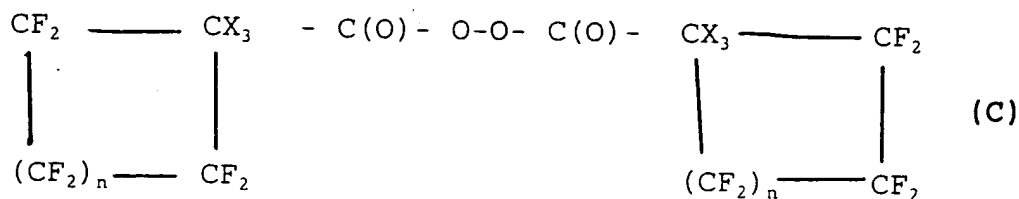
when  $R_f$  is  $-CF_3$ ,  $R_{f'}$  and  $R_{f''}$  are  $C_1$ - $C_3$  linear or branched perfluorooxyalkyl groups;



wherein:

$R_v$  is selected from F, perfluorooxyalkyl,  $C_1$ - $C_3$  linear or branched perfluoroalkyl;

$X_1, X_2$  are selected from F, perfluoroalkyl,  $C_1$ - $C_3$  linear or branched perfluorooxyalkyl.



wherein:

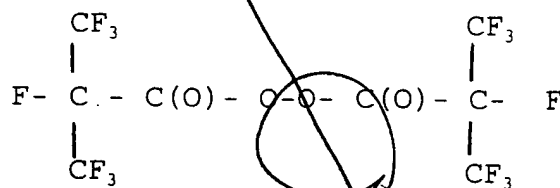
$n = 1-3$

$X_3$  is selected from F,  $C_1$ - $C_3$  linear or branched perfluoro-

alkyl, with the proviso that for  $n = 3$ ,  $X_3$  cannot be F; said perfluorodiacylperoxides meet the following condition: the thermal decomposition constants  $K_d$  ( $\text{sec}^{-1}$ ) in the presence of water do not undergo substantial variations with respect to the thermal decomposition constants in absence of water.

2. A polymerization process of one or more fluorinated monomers wherein the perfluorodiacylperoxides according to claim 1 are used as polymerization initiators.
3. A polymerization process according to claim 2, wherein the polymerization is carried out in aqueous medium, in suspension, in emulsion or in microemulsion.

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4. A polymerization process according to claims 2-3, wherein at temperatures of the order of  $50^\circ\text{--}80^\circ\text{C}$ , the perfluorodiacylperoxides of structure (C) or the compound of structure (A) having the formula:



are used.

5. A polymerization process according to claims 2-3, wherein at temperatures of the order of  $-20^\circ - +25^\circ\text{C}$ , the perfluorodiacylperoxides of structure (A) of formula: